



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/789,190

02/27/2004

Ebrahim H. Hargan

303.878US1

6975

21186 7590 07/18/2007
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

LE, THONG QUOC

ART UNIT

PAPER NUMBER

2827

MAIL DATE

DELIVERY MODE

07/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,190

Applicant(s)

HARGAN, EBRAHIM H.

Examiner

Thong Q. Le

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 27, 37-40 and 51-56 is/are allowed.
- 6) ☒ Claim(s) 28-30, 32-35 and 41-50 is/are rejected.
- 7) ☒ Claim(s) 31 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment filed on 05/21/2007 has been entered.
2. Claims 1-56 are presented for examination.

Response to Arguments

3. Applicant's arguments with respect to claims 1-56 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 28-30, 32-35, 41-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Kwon et al. (Pub. U.S. Patent No. 2004/0008547).

Regarding claims 28, 41-42, Kwon et al. disclose a method (Figure 3) comprising:

setting a latency time ([0007]) interval for outputting memory data at a data line ([0023], wherein the latency time interval occurs between an issuance of a command signal (Figure 3, RD) and the availability of a first bit ([0045]) of the memory data at the data line;

outputting a conditioning data ([0087]) to the data line during the latency time interval (Figure 3, SKEW) ; and

outputting the memory data to the data line after the latency time ([0023] data output after a latency time, [0077], [0081].

Regarding claims 29, 43, Kwon et al. disclose wherein the conditioning data includes a single conditioning bit ([0085], [0087]).

Regarding claims 30, 44, Kwon et al. disclose wherein the single conditioning bit has a bit value of zero (Figure 7).

Regarding claims 32-35, 46-49, Kwon et al. disclose wherein the conditioning data includes multiple conditioning bits ([0085]), and wherein any two consecutive bits among the number of conditioning bits have bit values different from each other ([0085-0087]), and wherein the number of conditioning bits is an odd number ([0079]), and wherein outputting the conditioning data and outputting the memory data to the data line include performing a multiplexing function (Figure 8, 79) to select data between the conditioning data from a conditioning data storage unit and the memory data from a memory array.

Regarding claim 45, Kwon et al. disclose wherein the strobe signal has at least one signal transition during the condition time interval (Figure 3, DQ).

Regarding claim 50, Kwon et al. disclose wherein the command is a read command signal for reading data from the memory array (Figure 3, RD).

Allowable Subject Matter

6. Claims 31, 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 31, 36 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Kwon et al. (Pub. U. S. Patent No. 2004/0008547), and others, does not teach the claimed invention having a wherein the data line has an initial signal level representing a bit value before the conditioning data is transferred to the data line, wherein the single conditioning bit has a bit value, and wherein the bit value of the single conditioning bit is unequal to the bit value of the data line, and wherein outputting the memory data includes outputting the memory data at the data line at a data rate of at least one gigabits per second.

7. Claims 1-27, 37-40, 51-56 are allowed.

Claims 1-27, 37-40, 51-56 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Kwon et al. (Pub. U. S. Patent No. 2004/0008547), and

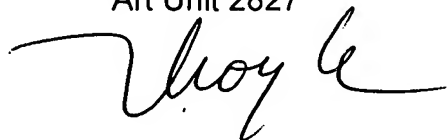
others, does not teach the claimed invention having an apparatus of a device and a method as disclosed in claims 1-27, 37-40, 51-56.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarabian Amir can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Q. Le
Primary Examiner
Art Unit 2827

A handwritten signature in black ink, appearing to read 'Thong Q. Le', is written over the printed name and title.